

June 27, 2016 11:12:02 AM

Page 1

Quality Control

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: <u>448137</u> Part No. <u>03153-4</u> NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☒ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Cross tube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☒</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☒	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																						
Thermoforming ☒	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																						
Large Fab ☐	Composite ☐	Supplier ☐																							
Date :		Step #:		QTY Effective :		MRB (QSI042) Approval																			
Description Work Order Deviation				Disposition																					
<i>Increase quantity to use up material prior to expiration date.</i> <i>W/A.</i> 2AQ TU 25-8				<i>Quantity of 17 sets.</i>																					
				Completed By																					
				Lead hand / Supervisor Approval Verification																					
				QC / QA Coordinator Approval																					
Root Cause		FAULT CATEGORY																							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐																				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐																				
Doc/Data ☐	Offset/Set-up ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐																				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐																				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐																				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐																				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐																				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐																				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐																				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐																				
Past Expiry Date ☐	Manufacturing Process ☐																								
Misidentified ☐	Past Due ☐	OTHER :																							

Work Order ID 148137

June 27, 2016 11:12:03 AM

148137

Page 2

Item ID: D3152-4

Revision ID:

Item Name: Seal

Start Date: 6/27/2016 Start Qty: 5.00

Required Date: 7/8/2016 Req'd Qty: 5.00

Reference:

Accept

N900040100Setup Start ***NS1***Stop ***NS2******5***

Cust Item ID:

5

Customer:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start ***NR1***

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

QC8- Inspect parts - second check

0.00

130

QC

Memo

0.02

Quality Control

17

DAS
38
9-89

NOV 03 2016

140

Identify as per dwg & Stock Location: _____

0.00

140

Packaging

Memo

0.01

Packaging

Location : CA2

17

DAS
6
9-89

NOV 07 2016

150

QC21- Final Inspection - Work Order Release

0.00

150

QC

Memo

0.08

Quality Control

DAS
21
9-89

NOV 07 2016

① 16-11-7

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

Picklist Print

June 27, 2016 11:12:08 AM

Page 1

Work Order ID: 148137

148137

Parent Item: D3152-4

D3152-4

Parent Item Name: Seal

Start Date: 6/27/2016

Required Date: 7/8/2016

Start Qty: 5.00

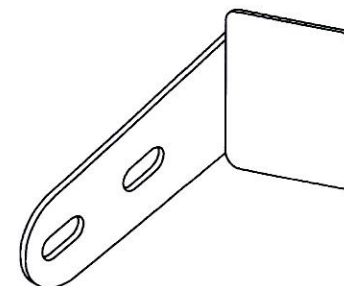
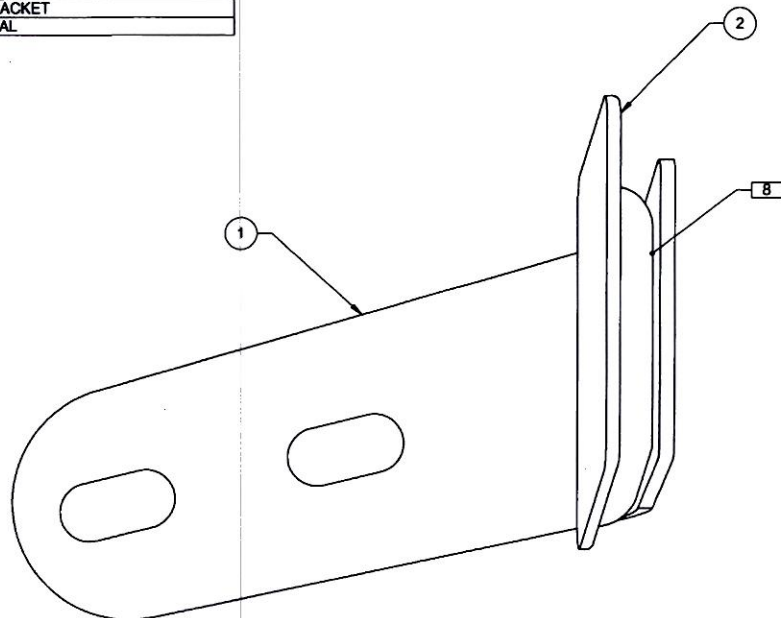
Required Qty: 5.00

Comments: IPP REV:A 15.01.29 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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No

ITEM	QTY .041	P/N	DESCRIPTION
	X	D3152-041	BRACKET ASSY
1	1	D3152-1	BRACKET
2	1	D3152-3	SEAL



D3152-041 BRACKET ASSEMBLY

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.04 lbs
- 8) BOND D3152-3 SEAL TO D3152-1 BRACKET USING RTV 732 CLEAR (A/R) OR RTV 732 BLACK (A/R)

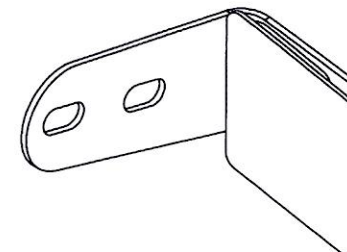
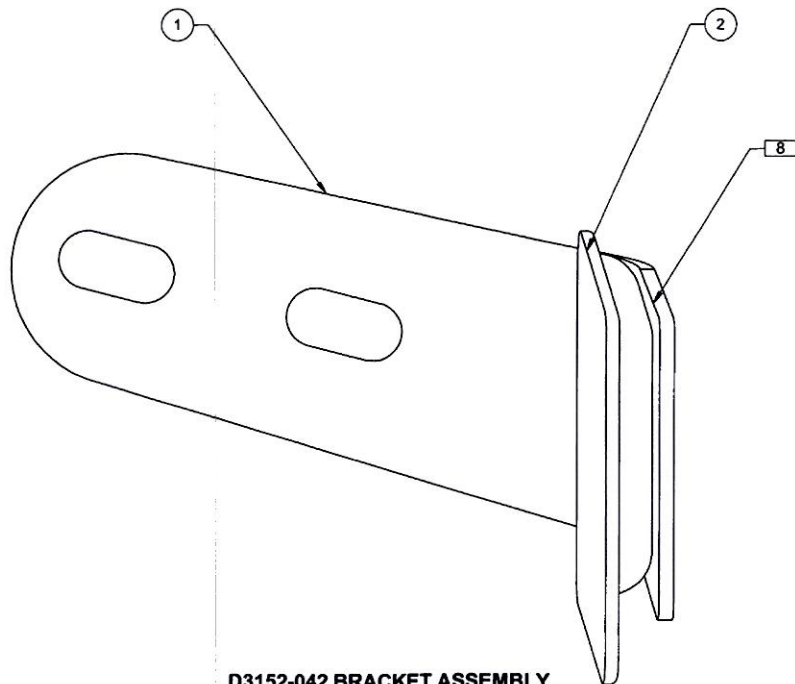
RELEASED

2015 FEB 13
ECN 14-463 47

C	REVISE D3152-3/4 (MATERIAL), RE-FORMAT DRAWING, RE-DIMENSION D3152-1F	DB	14.10.28
B	ADD PART MARKING & RTV 732 BLACK	RF	04.10.18
A	NEW ISSUE	HS	02.04.24
REV.	DESCRIPTION	BY	DATE
DESIGN	DB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	DB		
CHECKED	AP	DRAWING NO. REV. C	
MFG. APPR.	JLM	D3152 SHEET 1 OF 5	
APPROVED	HS	TITLE SCALE	
DE APPR.	DS	BRACKET ASSEMBLY NTS	
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APPROVED

ITEM	QTY -042	P/N	DESCRIPTION
	X	D3152-042	BRACKET ASSY
1	1	D3152-2	BRACKET
2	1	D3152-4	SEAL



D3152-042 BRACKET ASSEMBLY

RELEASED

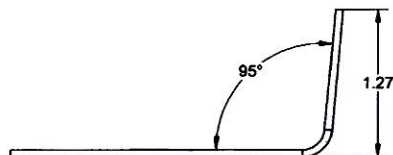
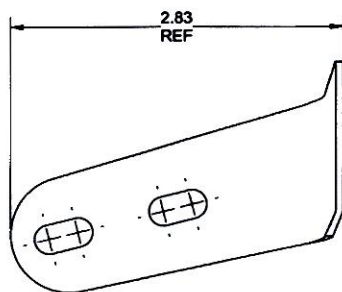
2015 FEB 13 *qr*

NOTES:

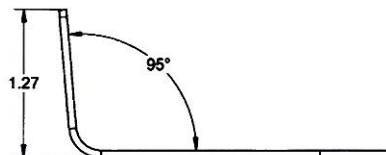
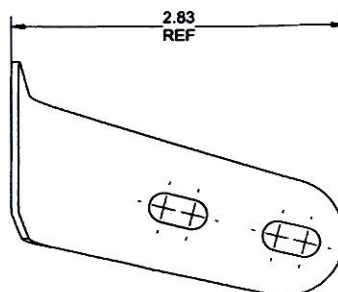
- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.04 lbs
- 8) BOND D3152-4 SEAL TO D3152-2 BRACKET USING RTV 732 CLEAR (A/R) OR RTV 732 BLACK (A/R)

APPROVED

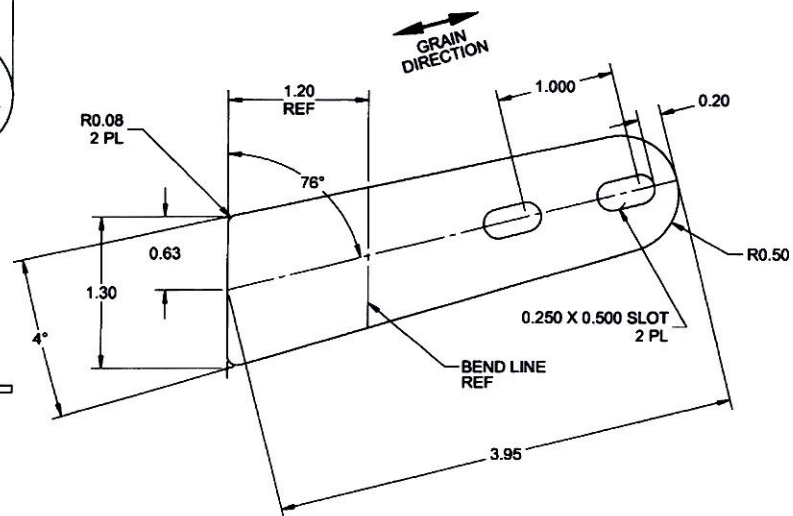
DESIGN	DB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	DB		
CHECKED	AP	DRAWING NO.	REV. C
MFG. APPR.	JLM	D3152	SHEET 2 OF 5
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DE APPR.	DS	BRACKET ASSEMBLY	NTS
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D3152-1 BRACKET
(MAKE FROM D3152-1F)
(REPLACES PREMIER P/N B30-23000-223)



D3152-2 BRACKET
(MAKE FROM D3152-1F)
(REPLACES PREMIER P/N B30-23000-224)



D3152-1F BRACKET
(FLAT PATTERN)

RELEASED

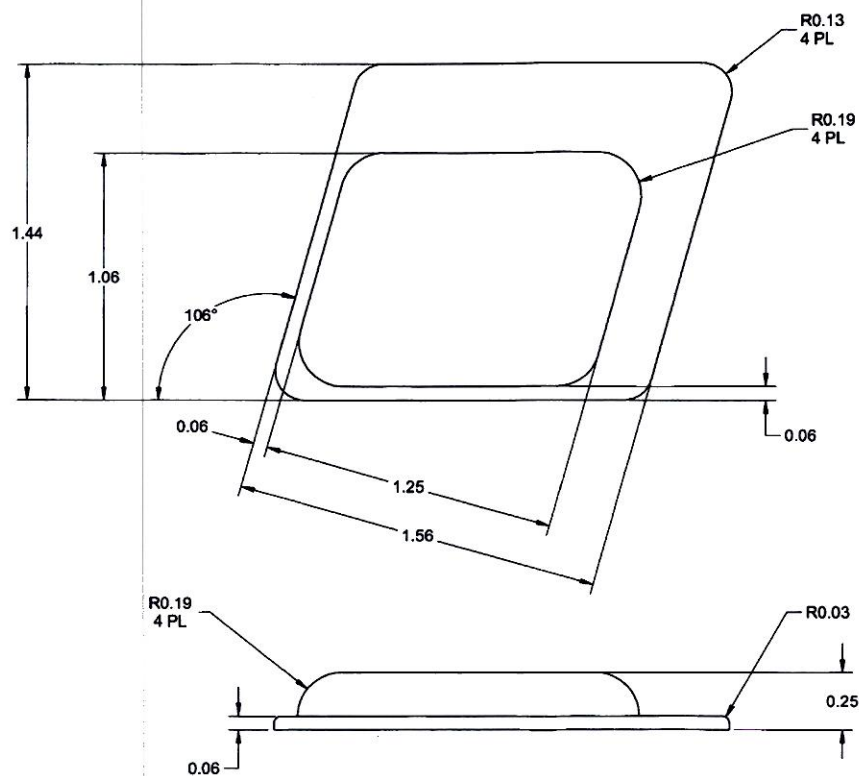
2015 FEB 13 *q*

NOTES:

- 1) MATERIAL: D3152-1F: 2024-T3 ALUMINIUM SHEET PER QQ-A-250/4 OR AMS-QQ-A-250/4
OR AMS 4037 OR ASTM B209 PER DART SPEC M2024T3S.063
- 2) FINISH: D3152-1/-2: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT GREY SANDEX (4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.03 lbs

APPROVED

DESIGN	DB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	DB		
CHECKED	AP	DRAWING NO.	REV. C
MFG. APPR.	JLM	D3152	SHEET 3 OF 5
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DE APPR.	DS	BRACKET ASSEMBLY	NTS
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D3152-3 SEAL
(REPLACES PREMIER P/N B30-23000-243)

RELEASED

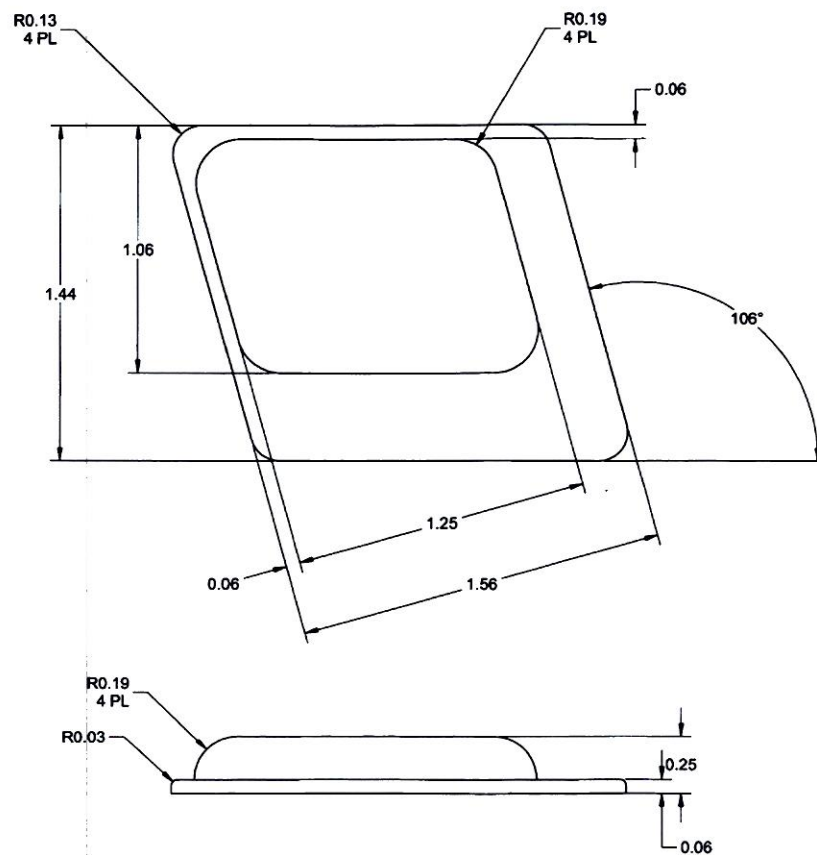
2015 FEB 13 *4P*

NOTES:

- 1) MATERIAL: M-SILCC-65A (2 PART SILICONE CASTING RESIN, SHORE 65A)
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.7
- 7) WEIGHT: 0.02 lbs
- 8) MAKE PARTS USING TOOL # DT10106 AND QSI 006 SECTION 4.18

APPROVED

DESIGN	DB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	DB		
CHECKED	AP	DRAWING NO.	REV. C
MFG. APPR.	JLM	D3152	SHEET 4 OF 5
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	BRACKET ASSEMBLY	NTS
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D3152-4 SEAL
(REPLACES PREMIER P/N B30-23000-244)

RELEASED

2015 FEB 13

NOTES:

- 1) MATERIAL: M-SILCC-65A (2 PART SILICONE CASTING RESIN, SHORE 65A)
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.7
- 7) WEIGHT: 0.02 lbs
- 8) MAKE PARTS USING TOOL # DT10106 AND QSI 006 SECTION 4.18

APPROVED

DESIGN	DB	DART AEROSPACE LTD	
DRAWN	DB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AP	DRAWING NO.	REV. C
MFG. APPR.	JLM	D3152	SHEET 5 OF 5
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